CRISPIN & BRENNER, P.L.L.C.
1156 15TH STREET, N.W.
SUITE 1105
WASHINGTON, D.C. 20005
(202) 828-0152
(202) 828-0158 (FAX)

ORIGINAL

EX PARTE OR LATE FILED

RECEIVED

SEP - 5 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

WRITER'S DIRECT NO.
(202) 828-0155

September 5, 2001

Ms. Magalie R. Salas
Federal Communications Commission
445 12th Street, S.W.
Washington, D.C. 20554

Re: Oral Ex Parte Presentation
CC Docket No. 94-102

Dear Ms. Salas:

On behalf of my client QUALCOMM Incorporated ("QUALCOMM"), this is to report that on September 4, 2001, Jonas Neihardt, Vice President of Federal Affairs for QUALCOMM and I met with Commissioner Kathleen Q. Abernathy and Bryan Tramont, Senior Legal Advisor to Commissioner Abernathy to discuss matters related to the above-referenced proceeding.

I. Summary

During this meeting, we discussed two principal topics with Commissioner Abernathy and Mr. Tramont. First, we provided Commissioner Abernathy and Mr. Tramont with information about the substantial progress of QUALCOMM and its handset vendor partners in producing phones containing QUALCOMM chips and software incorporating QUALCOMM's gpsOne position location technology (wireless assisted GPS), which meets the Commission's accuracy rules and will be ready for deployment by the Commission's October 1, 2001 deadline. It is now clear that a number of wireless carriers, including Sprint PCS, Verizon Wireless, Alltel, Qwest, and Leap Wireless, will be deploying this highly accurate position location technology consistent with the Commission's rules as they provide both 2G and 3G services, and the subscribers of these carriers' services will enjoy a large measure of added safety and protection from highly accurate E911 service.

Second, we also discussed QUALCOMM's opposition to the waiver requests filed by AT&T Wireless and Cingular seeking permission for delayed deployment of technologies (E-OTD and, in the case of AT&T Wireless, MNLS) which do not now meet the Commission's accuracy rules, will not do in the near future if ever, and will not be ready for deployment by the October 1, 2001 deadline, and QUALCOMM's opposition to any blanket rollback of the October

No. of Copies rec'd 0+4
List A B C D E

1, 2001 deadline or blanket rollback or elimination of any of the other deadlines in the Commission's E911 rules (so-called "uniform relief"). We argued that a grant of the AT&T and Cingular waiver requests would allow AT&T and Cingular to avoid providing highly accurate enhanced 911 service with the levels of accuracy which the police and other public safety officers need to safeguard the public and which other compliant wireless technologies, produced both by QUALCOMM and its competitors, can deliver. We also argued that the Commission should also deny these requests because any other action would create two very different sets of accuracy rules for wireless carriers: CDMA carriers would still have to meet the existing accuracy rules, but GSM and TDMA carriers would be permitted to meet very relaxed standards which they selected for themselves through their waiver requests. To protect the public, the Commission should deny these waiver requests. Further, we argued that a blanket rollback of either the October 1st deadline or any of the other deadlines or the elimination of any such deadline would be unnecessary, unwarranted, would only encourage delay by carriers, and would not result in faster deployment of E911 service for the public.

We also stated that the AT&T and Cingular waiver requests should be denied because of the availability of reasonable compliant alternatives for AT&T and Cingular and because the E-OTD and MNLS technology which AT&T and Cingular for which AT&T and Cingular are seeking waivers is deficient and will not produce reliable or highly accurate E911 service. We explained that assisted GPS technology has been tested extensively over the GSM air interface with very successful results and in Japan over the PDC air interface, and the results of these tests are described in documents attached hereto, which we provided to Commissioner Abernathy and Mr. Tramont. Moreover, we explained that assisted GPS technology has been successfully deployed over the PDC air interface on DoCoMo's cellular system in Japan. Given that the PDC air interface is very similar to TDMA (both operate with narrow channels), we explained that there is no merit to the notion that AT&T cannot deploy assisted GPS over its TDMA system to achieve much greater accuracy than is possible via MNLS because of TDMA's narrow channels.

II. QUALCOMM's Substantial Progress in Producing Chipsets and Software to Enable Wireless Carriers to Deploy Wireless Assisted GPS to Meet the Commission's Accuracy Requirements and the Commission's Deadlines

To demonstrate that QUALCOMM and its handset vendor partners are on track in producing 2G wireless phones containing QUALCOMM's MSM3300 chipsets, the first chipset which allows handset manufacturers to make 2G wireless phones incorporating QUALCOMM's gpsOne position location technology (wireless assisted GPS) to meet the FCC's E9-1-1 mandate, we showed Commissioner Abernathy and Mr. Tramont an actual Denso 3300 Form Factor Appropriate ("FFA") wireless phone containing a MSM3300 chipset, and we provided them with with the attached page showing the Denso 3300 phone and describing the worldwide deployments of gpsOne. We explained that these Denso phones, along with 2G wireless phones manufactured by other handset vendors, will be available to wireless operators by October 1, 2001, with additional models containing the MSM3300 available shortly thereafter.

As a further demonstration that QUALCOMM is on schedule in the production of chipsets incorporating QUALCOMM's gpsOne technology, we showed Commissioner

Abernathy and Mr. Tramont a wireless device incorporating the MSM3300 which was deployed beginning in Japan in April 2001 by a private Japanese security company, SECOM, using KDDI's cellular network. We also gave them the attached page on this first gpsOne commercial deployment, which has a picture of this device marketed by SECOM. We stated that this deployment has been very successful both commercially and in enhancing public safety, and the initial commercial results are more fully described in my ex parte letter dated April 25, 2001

In addition, we discussed with Commissioner Abernathy and Mr. Tramont QUALCOMM's current progress in producing chipsets containing both QUALCOMM's gpsOne position location technology and QUALCOMM's 3G cdma2000 1x technology. We provided a copy of the attached press release, dated April 16, 2001, in which QUALCOMM announced that it had begun shipping samples of its MSM5100 chipset, which includes both QUALCOMM's gpsOne technology to meet the FCC's E911 mandate and QUALCOMM's 3G cdma2000 1x technology, which supports data rates of up to 307 kbps to enable the provision of 3G services.

We explained that based upon QUALCOMM's current schedule in the production and shipment of MSM5100 chipsets and QUALCOMM's understanding of the current progress of handset manufacturers, QUALCOMM anticipates that there should be 5100-powered handsets, with both E911 and 3G 1x capabilities, commercially available before the end of 2001. Thus, without any additional spectrum, wireless carriers who have opted to deploy cdma2000 1x and gpsOne will be able to deliver both 3G high speed data services and the added protection afforded by enhanced 911 service consistent with the Commission's accuracy rules beginning in late 2001.

In sum, we stated that QUALCOMM has followed through on its commitment to giving wireless carriers the tools they need to provide E911 service with the mandated accuracy levels to protect the public and to enable the carriers to meet the deadlines in the Commission's rules. We also gave Commissioner Abernathy and Mr. Tramont the attached page which shows that the wireless assisted GPS technology has been tested worldwide on the AMPS, CDMA, GSM, and PDC (similar to TDMA) air interfaces and has exceeded the Commission's accuracy rules in all of these tests.

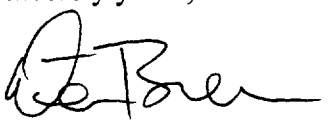
III. The Commission Should Deny the Requests of AT&T and Cingular for Waivers of the Rules to Deploy Technologies Which Do Not Meet the Commission's Accuracy Rules and Will Not Give the Public the Protection from Enhanced 911 Service Guaranteed By the Commission's Rules

We told Commissioner Abernathy and Mr. Tramont that the Commission should deny the AT&T and Cingular waiver requests because there are reasonable alternatives to a grant of a waiver to AT&T and Cingular, and the technology for which they seek a waiver to deploy over an extended timetable falls far short of the accuracy rules and is not likely in the near future, if ever, to become compliant. We provided them with a copy of my ex parte letter dated August 13, 2001 which provides detailed information to support both of these arguments. We explained that as described more fully in the attached August 13, 2001 filing, E-OTD and MNLS are not reliable location technologies, and the Commission should not grant a waiver of the accuracy

rules to permit AT&T and Cingular to deploy these deficient technologies. We explained that QUALCOMM has licensed its technology to Motorola and Texas Instruments which make chips for GSM and TDMA phones, and thus AT&T and Cingular could deploy wireless assisted GPS if they ordered handsets from their handset vendors with assisted GPS technology provided by QUALCOMM's licensees.

We provided Commissioner Abernathy and Mr. Tramont with a copy of the documents attached hereto.

Sincerely yours,



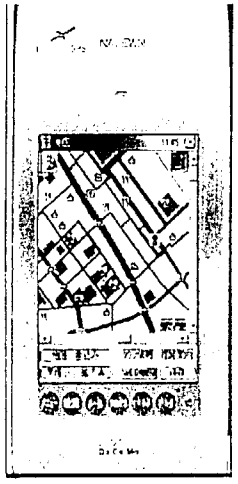
Dean R. Brenner
Attorney for QUALCOMM Incorporated

Cc: Commissioner Kathleen Q. Abernathy
Bryan Tramont, Esq.

gpsOne and SnapTrack Worldwide Deployment

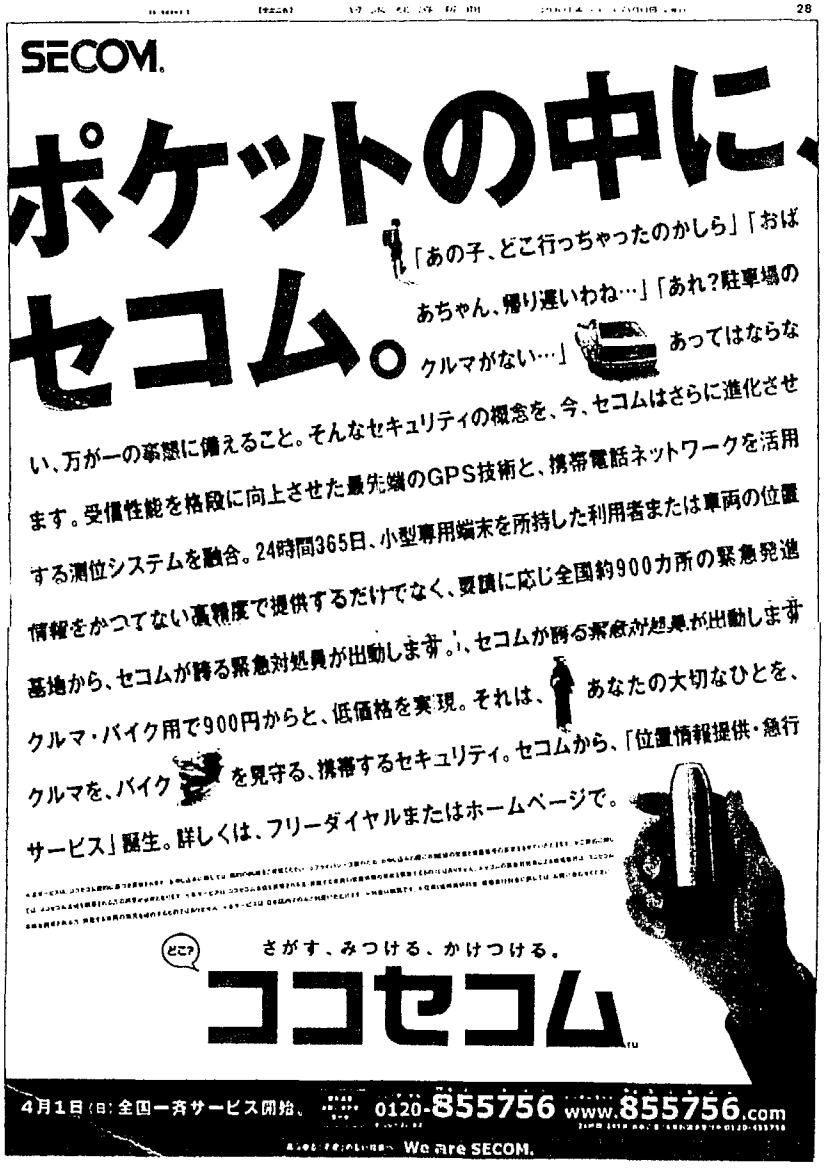
May 2001

QUALCOMM

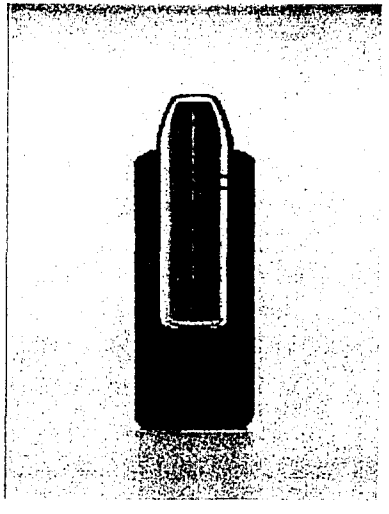


- Over 30 carriers on three continents have trialed SnapTrack/gpsOne technology in the past 3 years on all major air interfaces
- January 2000 deployment of SnapTrack-enhanced Naviewn in Japan by NTT DoCoMo
- 2001 gpsOne MSM-3300-based deployment in Japan by SECOM on the KDDI network
- 2H2001 deployment of SnapTrack-enhanced 2-way pagers (ReFLEX) in North America via Locate Networks/Glenayre and partners
- 2H2001 gpsOne and MSM-3300 deployment in US by major US CDMA carriers (Sprint PCS, etc.)
- Over 20 CDMA handset manufacturers developing gpsOne-enabled handsets for both Asian and US markets
- Solutions for multiple air interfaces available beginning 2002

First gpsOne Commercial Product



- SECOM/Hitachi security device on a KDDI CDMA commercial network in Japan
- First deployed April 1, 2001
- Monthly fee: $5/month, including 2 locate fixes
- Applications in Japan include monitoring location of automobiles, motorcycles, children, seniors



QUALCOMM

First Position Location-Enabled Phone

- Wireless Assisted GPS
- Location service support
- Customized services
- MIDI-compatible downloadable ringers
- Enhanced voice services
- Web browser

*DENSO Press Release at CTIA Wireless 2001

Wireless Assisted GPS Proven Worldwide on Major Air Interfaces: AMPS, CDMA or GSM

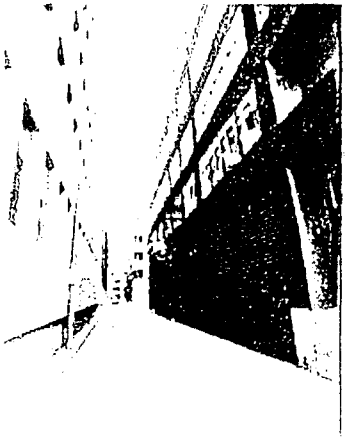
Denver, CO (analog/CDMA)
outdoor, open: 1-Σ = 4 m

San Francisco, CA (analog/GSM/CDMA)
inside urban parking garage:1-Σ = 45 m

Tampa, FL (CDMA)
1st story, 2-story house: 1-Σ = 20

Tokyo, Japan (PHS/PDC)
dense urban: 1-Σ = 18 m

Madrid, Spain (GSM)
dense urban: 1 -Σ = 37 m

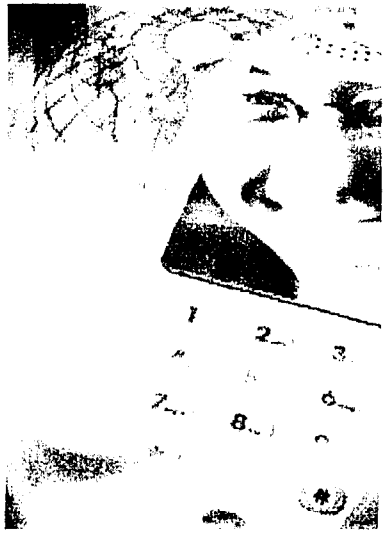


Washington, D.C. (analog)
urban alley: 1-Σ = 50 m

*Sample data from specific field tests, may not be representative of all conditions

Providing Safety and Privacy

- gpsOne is a handset-based technology; all satellite and pilot measurements are taken at the handset
- Position location can be turned off at the handset
  - "Opt-in" approach: settings preset to off
  - Four possible settings:
    - Off except for E-911 calls
    - Off for network (external) initiated requests
    - Off for handset initiated requests
    - On
- Location generated only when specifically requested or authorized by a subscriber – consistent with Location On Demand™ feature
  - Prevents unauthorized location of wireless consumers
- gpsOne is the only technology that satisfies both privacy and safety concerns



* E911 Capability is always on

SnapTrack
A QUALCOMM Company

Non-CDMA Trials Prove WAG Around the World

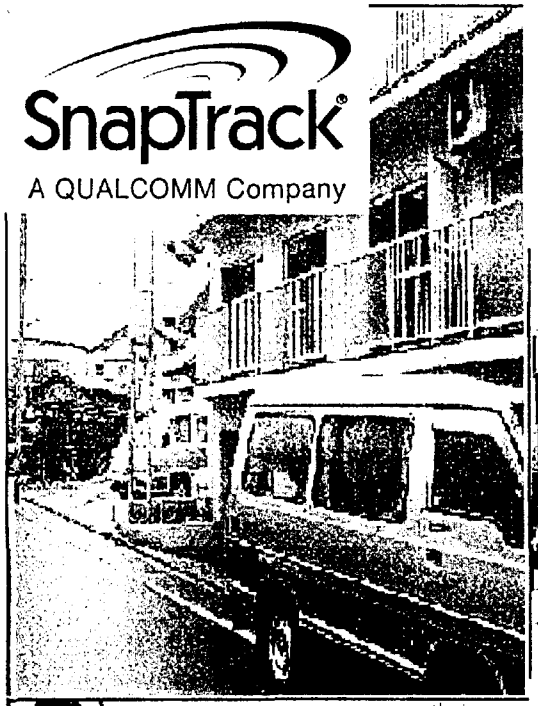
Publicly Disclosed Trials

- United States
  - San Francisco (U.S. Marines Urban Warrior Exercise): GSM
  - Washington, D.C. : Analog
  - Denver: Analog/CDMA end-to-end E9-1-1 trial*
  - San Francisco Bay Area: Analog
  - Charlotte, NC: GSM
- Japan
  - Kyoto (Manufacturer): PHS
  - Tokyo (NTT DoCoMo): PDC
- Europe
  - France, Britain, Germany, BenNeLux: (France Telcom and members of the GSM Test Group): GSM
  - Spain (Telefonica Moviles and members of the GSM Test Group): GSM
  - Italy (Carrier): GSM
  - Finland (Manufacturer): GSM

* With Denver and Adams County PSAPs, SignalSoft, SCC, U S WEST Wireless

SnapTrack®
A QUALCOMM Company

Audited SnapTrack Japan Field Testing



Each location is an independent fix from a cold start

Location	1-sigma (68.3%)	Yield
Outdoor, Kawasaki	4 meters	100%
Indoor, Kawasaki	12 m	100%
Outside, Shinbashi	12 m	100%
Inside Coffee Shop, Shinbashi	20 m	100%
Alley, Ginza	18 m	100%
I-Land Street, Shinjuku	44 m	100%

*Testing designed and audited by NTT DoCoMo on PDC network

SnapTrack
A QUALCOMM Company

SnapTrack GSM Test Group

- SnapTrack GSM Test Group
  - Publicly disclosed members include Vodafone AirTouch Communications PLC (UK and US), BellSouth Mobility DCS (US), BT Cellnet (UK), Esat Digifone (Ireland), France Telecom (France), Omnitel Pronto Italia (Italy), Powertel (US), T-Mobil (Germany), Telecel (Portugal) and Telefonica (Spain), and applications developer SignalSoft (UK and US). Motorola provided prototype handsets. Infrastructure providers CMG Telecommunications (Holland), Nortel Networks (France) and Siemens Information and Communication Networks (Germany) also participated in the trials.
- First phase completed 10/99
  - First publicly announced end-to-end location application trials conducted in Madrid Spain on Telefonica Moviles network
- Second phase completed 10/00
  - Pan-European roaming trials hosted by France Telecom

SnapTrack®
A QUALCOMM Company

GSM Roaming Trials With European Carriers

France Telecom
(Trials Host)

vodafone airtouch
EUROPOLITAN
powertel
TELECEL

Sweden
T-Mobil
omnitel
Esat Digifone

Telefónica
Telefónica Servicios Móviles

Italy
CMG
Information technology

BTcellnet

TEXAS INSTRUMENTS

MOTOROLA

SIEMENS

Sample Trial Locations

Trial results

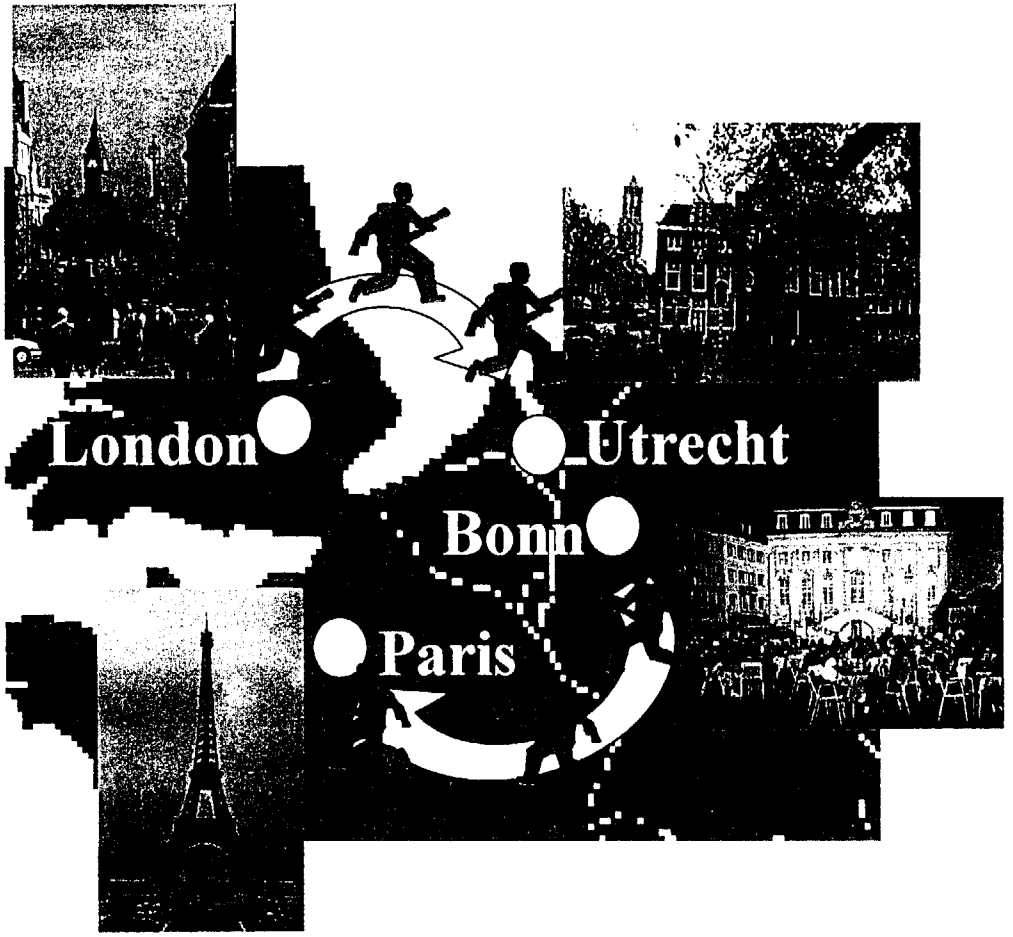
Suburban/Rural: 5m to 10m

Urban/Dense Urban: 10m to 50m

Indoor (apartment, office, home, shops): 20m to 45m

SnapTrack®
A QUALCOMM Company

Pan-European Trials Show Wide Area Deployment



- Wide area deployment
  - Single location server provided location calculations for wide area
  - No LMUs or extensive infrastructure modifications for deployment
- Wide range of environments
  - Indoor and outdoor
  - Urban and rural
- Use of SMS for data transport
- Prototype terminals from Motorola

SnapTrack
A QUALCOMM Company

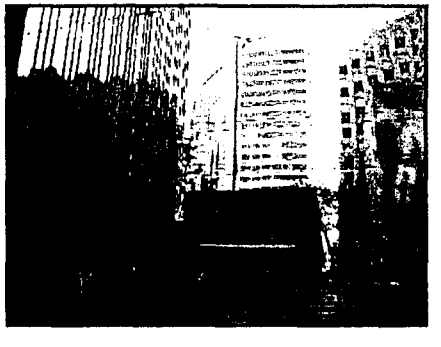
Field Test Results

Hyde Park of London, UK
Outdoor: 8.89m accuracy
Yield: 100%

Shaftsbury Hotel, London, UK
Urban Outdoor: 29.76m accuracy
Yield: 100%

San Isidro Church, Madrid, Spain
Dense Urban: 37.6m accuracy
Yield: 99.5%

Place de Pantheon, Paris, France
Urban Outdoor: 37.84m accuracy
Yield: 100%



Downtown San Francisco, Indoor 1st floor of skyscraper, Briazz Deli Inside, Deep Urban Canyon:
108m accuracy
Yield: 97%

Restaurant Les Chevaux de Marly, Paris, France
Indoor: 31.52m accuracy
Yield: 98.1%

SnapTrack®
A QUALCOMM Company

GSM End-to-End Applications Field Trials

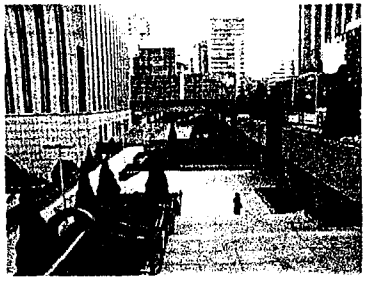
Madrid Test Objectives

- Validate performance of SnapTrack's wireless-assisted GPS technology when integrated into a GSM network
- Demonstrate representative commercial applications which take advantage of highly accurate location
  - Support Carrier's business modeling & service planning
  - Concierge Services
  - Personnel / Vehicle Tracking
- Characterize performance of SnapTrack's wireless-assisted GPS technology in representative European environments
  - Use of carrier signal for stability
  - Use of cell site for approximate location
  - Demonstration of time determination using pattern matching approach
  - Performance in the presence of handset transmission noise

SnapTrack
A QUALCOMM Company

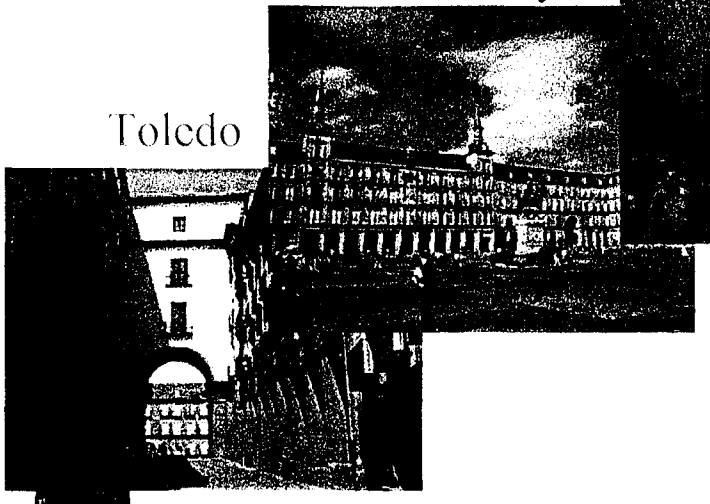
Application Trials Conducted in Typical Call Environments

Interior, 20th floor
Torre Picasso



Plaza Mayor

Toledo



Preciados

Carmen

Cordon

San Isidro

Accurate breadcrumb and on-demand location trials were conducted with no drops in all of the above environments

SnapTrack®
A QUALCOMM Company

Performance Summary

- High Availability
  - Determines location inside most buildings, urban areas with severe multipath, and rural areas even with single base station coverage
  - Allows user roaming services
- High Performance
  - 5-50 meter precision in most environments
  - Less than 6 seconds to first fix (from cold start), update fixes in 1-2 seconds
- Low Cost
  - Less expensive than network-based solutions, which require hardware and software at many base stations
  - Easier to upgrade and maintain than network-based systems
- Integration
  - Architecture simplifies integration into wireless network
  - Functions on any air interface: telephony, paging, satellite
  - May be integrated into nearly any wireless device, including mobiles, PDAs, and pagers
  - Able to interface with any mapping system

QUALCOMM

NEWS RELEASE

www.qualcomm.com > Press Room

QUALCOMM CDMA Technologies Announces On-Time Sample Shipment of World's First 3G 1x Solution with Advanced Position Location Capabilities and Support for Data Rates of up to 307 Kbps

- MSM5100 Integrated Circuit, System Software and SURF Development Platform Supports 3G CDMA2000 1x with Key Wireless Internet Launchpad Features -

SAN DIEGO -- April 16, 2001 -- QUALCOMM Incorporated (Nasdaq: QCOM), pioneer and world leader of Code Division Multiple Access (CDMA) digital wireless technology, today announced the on-time sample shipment of the MSM5100™ Mobile Station Modem (MSM™) integrated circuit, including the initial release of the QUALCOMM CDMA Technologies (QCT) Dual-Mode Subscriber Software (DMSS™) technology and Subscriber Unit Reference (SURF™) development platform. The MSM5100 integrated circuit and system software, along with key components of QCT's Wireless Internet Launchpad™ suite of advanced technologies, provide handset manufacturers and third-generation (3G) 1x system operators with the ability to deliver the highest level of integration for 3G handsets and quickly roll out new 3G services to their subscribers.

"The MSM5100 integrated circuit and system software, together with the accompanying SURF development platform, delivers our second generation of 3G multimedia solutions, complementing the MSM5105 device that sampled in January 2001," said Don Schrock, president of QUALCOMM CDMA Technologies. "The MSM5100 solution will enable manufacturers to roll out cost-effective 1x handsets and offers the key technologies of QCT's Wireless Internet Launchpad portfolio, including exciting new services such as streaming video and wireless video conferencing, as well as support for E9-1-1 and high-accuracy position location capabilities."

The MSM5100 integrated circuit and system software solution supports data rates of up to 307 kilobits per second (kbps) in the forward link. Capable of providing up to a 50 percent increase in standby times, and up to twice the overall capacity for voice of IS-95A/B systems, the MSM5100 solution will allow manufacturers to develop state-of-the-art 3G handsets that feature the most complete set of positioning, multimedia and other advanced features available in the wireless industry.

The MSM5100 solution incorporates QCT's Wireless Internet Launchpad suite, enabling a broad range of new terminal products, applications and Internet services, including gpsOne™ position location solution and Bluetooth™, as well as multimedia features such as Qtunes™ Moving Picture Experts Group (MPEG-1) Layer-3 (MP3) player software and Compact Media Extension (CMX™) Musical Instrument Digital Interface (MIDI)-based multimedia software. The MSM5100

device also supports the Binary Runtime Environment for Wireless™ (BREW™) applications platform.

The gpsOne solution, which integrates SnapTrack™ technology with Global Positioning System (GPS) satellite and network information, provides a high-availability solution that offers industry-leading accuracy and performance. The gpsOne solution provides the world's most available and cost-effective solution for wireless position location technology in a mobile handset for CDMA cellular and Personal Communications Service (PCS) networks, and will meet the Federal Communications Commission (FCC) mandate requiring wireless operators to provide the location of 911 calls (E9-1-1). The MSM5100 solution also enables a broad range of future 3G GPS-related software and services, including navigation information, area-specific weather forecasts, traffic reports and commercial tracking services, as well as a broad range of entertainment applications, including online chat and bulletin boards.

The MSM5100 integrated circuit also provides the most efficient solution to integrate Bluetooth digital baseband processing into a comprehensive 3G CDMA integrated circuit and system software solution. Bluetooth is a short-range radio technology that eliminates the need for wired connections between digital devices, and is becoming an industry standard to ensure that computing and telecommunications equipment can communicate easily. Bluetooth provides a universal bridge to existing data networks, a peripheral interface, and a mechanism to form small, private ad hoc groupings of connected devices away from fixed network infrastructures.

Optional software from QUALCOMM for the MSM5100 solution enables advanced audio features such as Qtunes MP3 player software and CMX MIDI-based multimedia software.

MP3 is a standard audio file format for compressing a sound sequence into about one-twelfth the size of the original file with very little loss in sound quality. These enhancements will allow a wide variety of future wireless music applications, including karaoke phones, MP3 player phones and more.

The MSM5100 solution also integrates a mass storage device controller, such as a Multimedia Card (MMC) interface, which will provide an effective interconnection to much larger memory space to store MP3 music data or mapping data from a geographical navigation service.

The MSM5100 solution is available in a 208-ball Fine-Pitch Ball Grid Array (FBGA) production package, and is pin-compatible with the MSM3300™ IS-95A/B integrated circuit, which will enable handset manufacturers to reduce the time-to-market for highly integrated and feature rich 3G CDMA2000 handsets as 3G networks and services are being rolled out.

QCT, a division of QUALCOMM Incorporated, is a developer and supplier of CDMA integrated circuits, hardware and software solutions, and tools, with more than 133 million cumulative shipments of MSM chips worldwide. QCT offers wireless position location technology by SnapTrack, a wholly owned subsidiary of QUALCOMM. QCT supplies chipsets to the world's leading CDMA handset and infrastructure manufacturers including: Acer Peripherals, Inc., ALPS ELECTRIC CO., LTD.; CASIO COMPUTER CO., LTD.; FUJITSU LIMITED; Hitachi, Ltd.; Hyundai Electronics Industries Co., Ltd.; KYOCERA CORPORATION; LG Information and Communications, Ltd.; Samsung Electronics Ltd.; SANYO Electric Co., Ltd.; and Toshiba Corporation, among others.

QUALCOMM Incorporated (www.qualcomm.com) is a leader in developing and delivering innovative digital wireless communications products and services based on the Company's CDMA digital technology. The Company's business areas include CDMA integrated circuits and system software; technology licensing; the BREW applications platform; Eudora® e-mail software; digital cinema systems; and satellite-based systems including portions of the Globalstar™ system and wireless fleet management systems, OmniTRACS® and OmniExpress™. QUALCOMM owns patents that are essential to all of the CDMA wireless telecommunications standards that have been adopted or proposed for adoption by standards-setting bodies worldwide. QUALCOMM has licensed its essential CDMA patent portfolio to more than 100 telecommunications equipment manufacturers worldwide. Headquartered in San Diego, Calif., QUALCOMM is included in the S&P 500 Index and is a 2000 FORTUNE 500® company traded on The Nasdaq Stock Market® under the ticker symbol QCOM.

Except for the historical information contained herein, this news release contains forward-looking statements that are subject to risks and uncertainties, including the Company's ability to successfully design and have manufactured significant quantities of CDMA components on a timely and profitable basis, the extent and speed to which CDMA is deployed, change in economic conditions of the various markets the Company serves, as well as the other risks detailed from time to time in the Company's SEC reports, including the report on Form 10-K for the year ended September 24, 2000, and most recent Form 10-Q.

###

QUALCOMM Contacts:
Anita Hix, CDMA Technologies Public Relations
1-(858) 658-5879 (ph) 1-(858) 651-7385 (fax)
e-mail: ahix@qualcomm.com
or
Christine Trimble, Corporate Public Relations
1-(858) 651-3628 (ph) 1-(858) 651-2590 (fax)
e-mail: ctrimble@qualcomm.com
or
Julie Cunningham, Investor Relations
1-(858) 658-4224 (ph) 1-(858) 651-9303 (fax)
e-mail: jcunningham@qualcomm.com

QUALCOMM Home > Press Room

Monday August 6, 7:31 am Eastern Time

Press Release

SOURCE: SnapTrack, Inc.

SnapTrack and TechnoCom Team Up to Provide gpsOne-Based E9-1-1 and Location-Based Commercial Services Deployment Support to Wireless Carriers

CAMPBELL, Calif.--(BUSINESS WIRE)--Aug. 6, 2001--SnapTrack, Inc.®, a wholly-owned subsidiary of QUALCOMM Incorporated (Nasdaq:QCOM - news), and TechnoCom Corporation®, today announced a joint effort to provide integration and deployment support for E9-1-1 emergency cell phone location and location-based commercial services for QUALCOMM's SnapTrack-enhanced, gpsOne(TM)-based wireless location systems. gpsOne technology provides industry-leading accuracy, availability and performance, and comprises a complete client-server-based wireless location systems solution for carriers worldwide, including integrated chipsets supporting multiple wireless standards and SnapTrack's SnapSmart(TM) Position Determination Entity (PDE) location server software. The agreement between the two companies establishes TechnoCom as the preferred field-test, engineering services, and integration contractor for carriers and SnapTrack OEMs for deployment services, trial management and implementation of gpsOne-based wireless location systems in the United States.

``We're very pleased to be working with TechnoCom, the premier wireless location system deployment and integration experts providing Phase II E9-1-1 implementations throughout the United States," said Bret Sewell, president of SnapTrack. ``This greatly advances gpsOne deployment capabilities and provides carriers around the world with experienced gpsOne systems implementation expertise."

``By applying TechnoCom's wireless and location system deployment experience and tools to Qualcomm's commercial Hybrid Wireless Assisted GPS and gpsOne solutions, carriers will have access to best-of-breed

wireless location technology, software, systems engineering, and integration and deployment services," said Mario Proietti, CEO of TechnoCom. "We'll guide carriers through their gpsOne deployment and provide on-going service assurance to cost-effectively maximize the performance of their gpsOne systems."

Under the agreement, SnapTrack will provide TechnoCom with training and experience on demonstration and validation utilities for SnapTrack's SnapSmart PDE server software, and TechnoCom will adapt its suite of location system deployment, testing and performance-monitoring applications for use with the SnapTrack SnapSmart system. SnapTrack and TechnoCom will also jointly develop and certify gpsOne field-test methods and procedures that will be used to ensure uniform standards for TechnoCom-managed deployment activities and trials.

Headquartered in Encino, California, TechnoCom Corporation provides systems engineering, services and products that enable location for a rapidly expanding range of global wireless applications. Founded in 1995, TechnoCom develops, integrates and deploys location systems for leading wireless carriers and location service providers to bring solutions for wireless E9-1-1 and location-based commercial services to market. TechnoCom is working with five of the top 10 U.S. carriers to enable their wireless E9-1-1 and location-based services and has developed a suite of tools for the design, deployment and testing of wireless location systems. TechnoCom also develops hardware and software based on its LM Exchange(TM) platform for GPS-based location services that provide solutions for mobile applications such as telematics, fleet management, mobile commerce, public safety and asset tracking. TechnoCom is led by a team that helped pioneer wireless location technology and has deployed and operated location systems around the world. For more information, please visit http://www.technocom-wireless.com.

Headquartered in Campbell, California, SnapTrack is focused on integrating GPS and two-way wireless technologies. SnapTrack's patented architecture offers anytime, anywhere, accurate, high-speed location of a wireless caller, even inside buildings where conventional GPS does not operate. SnapTrack pioneered Wireless Assisted GPS(TM) and owns patents that are fundamental to the cost-effective deployment of Wireless Assisted GPS-based location systems. The Company's Wireless Assisted GPS products include the SnapSmart location server software system, the SnapCore(TM) multi-mode GPS solution and the SnapWARN(TM) GPS reference service. SnapTrack has commercial agreements with major wireless chipset vendors that provide most of the wireless modem chipsets to the industry. In addition, many major carriers have chosen to deploy products and services incorporating SnapTrack technology. SnapTrack is a wholly owned subsidiary of QUALCOMM. For more information, please visit http://www.snaptrack.com.

QUALCOMM Incorporated (www.qualcomm.com) is a leader in developing and delivering innovative digital wireless communications products and services based on the Company's CDMA digital technology. The Company's business areas include CDMA integrated circuits and system software; technology licensing; the Binary Runtime Environment for Wireless(TM) (BREW(TM)) applications platform; Eudora® e-mail software; digital cinema systems; and satellite-based systems including portions of the Globalstar(TM) system and wireless fleet management systems, OmniTRACS® and OmniExpress(TM). QUALCOMM owns patents that are essential to all of the CDMA wireless telecommunications standards that have been adopted or proposed for adoption by standards-setting bodies worldwide. QUALCOMM has licensed its essential CDMA patent portfolio to more than 100 telecommunications equipment manufacturers worldwide. Headquartered in San Diego, Calif., QUALCOMM is included in the S&P 500 Index and is a 2001 FORTUNE 500® company traded on The Nasdaq Stock Market® under the ticker symbol QCOM.

Except for the historical information contained herein, this news release contains forward-looking statements that are subject to risks and uncertainties, including the Company's ability to successfully design

and have manufactured significant quantities of CDMA components on a timely and profitable basis, the extent and speed to which gpsOne is deployed, change in economic conditions of the various markets the Company serves, as well as the other risks detailed from time to time in the Company's SEC reports, including the report on Form 10-K for the year ended September 24, 2000, and most recent Form 10-Q.

Contact:

SnapTrack, Inc.
John Cunningham, 408/626-0522, Fax: 408/626-0550
cunningh@qualcomm.com
or
QUALCOMM CDMA Technologies
Anita Hix, 858/658-5879, Fax: 858/651-7385
ahix@qualcomm.com
or
TechnoCom Corporation
Janice Partyka, 818/501-1909, Fax: 818/501-1919
jpartyka@technocom-wireless.com

Email this story - Most-emailed articles - Most-viewed articles

More Quotes and News: Qualcomm Inc (NasdaqNM:QCOM - news)
Related News Categories: computer hardware, computers, networking, software, telecom

Search News Help

QUALCOMM

NEWS RELEASE

www.qualcomm.com > Press Room

SnapTrack GSM Test Group Successfully Completes Most Extensive Pan-European Tests of High-Accuracy Wireless Location Technology

-- Wireless Assisted GPS-Based System Trials Demonstrate SMS, Seamless Cross-Border Roaming --

SAN JOSE, Calif. -- November 28, 2000 -- SnapTrack Inc., a wholly owned subsidiary of QUALCOMM Incorporated (Nasdaq: QCOM) and leader in wireless position location technology, today announced the completion of an extensive series of wireless handset location tests across Europe, marking more than one year of independently audited testing of SnapTrack's Wireless Assisted GPS™ system by Global System for Mobile telecommunications (GSM) industry leaders. The tests, conducted by members of SnapTrack's GSM Test Group, (an international consortium of GSM carriers, handset suppliers, applications providers, infrastructure manufacturers and semiconductor manufacturers), conclusively proved that SnapTrack's technology can accurately and rapidly locate mobile phones in a wide range of European calling environments and support seamless cross-border location roaming services.

Wireless handset location roaming trials, using prototype handsets and two types of miniature GPS antennas suitable for use in small mobile devices, were conducted in and around the major urban centers of Paris, Bonn, London and Utrecht, as well as other locations. A single Location Server hosted by France Telecom Mobiles provided location calculation support for all of the trial locations in Western Europe, and demonstrated SnapTrack's unique ability to provide cross-border roaming and wide-area service coverage from a single service center. Callers were successfully located on successive networks during the trials in a wide range of environments, from city centers, to rural villages and motorways. CMG Telecommunications teamed with France Telecom Mobiles and SnapTrack to provide the interface between the location server and the network Short Message Service Center (SMSC) to test the use of SMS as the data bearer for wireless position information. This approach allows location transactions to take place during voice calls and during idle mode. CMG Telecommunications believes that the Short Message Service turned out to be suitable for this type of application.

For relatively open outdoor sites, including suburban neighborhoods and wooded parks, typical accuracies were in the 5-10 meter range. Outdoor testing in dense urban and urban canyon environments, including both narrow, medieval Parisian streets and modern skyscraper complexes, yielded average accuracies of 30-50 meters, with some results as precise as 10 meters. Indoor tests were conducted in a variety of commercial and residential structures in both city center and suburban locations. Included in these tests were train stations, apartment buildings, office buildings, restaurants, shops and residences. Typical accuracies for these indoor sites ranged from 30 to 45 meters with some yields as precise as 20 meters. The roaming tests in London showed very similar accuracies to the Paris tests, clearly demonstrating the viability of operation across carrier network boundaries.

"We're looking forward to continuing our work with the GSM Test Group to bring the benefits of SnapTrack's wireless location system to the market," said Steve Poizner, president of SnapTrack. "The pan-European roaming trials clearly demonstrate that our technology can achieve high levels of accuracy — even in very harsh calling environments where other location technologies fail to perform. These trials not only demonstrated SnapTrack's compatibility with SMS, but also that SnapTrack's enhanced GPS handset-

based technology represents the most cost-effective, high quality solution for seamless cross-border, cross-network location services roaming."

The SnapTrack GSM Test Group Phase I trials in Madrid, Spain, successfully demonstrated near-commercial location services applications in the GSM environment, with callers typically pinpointed to within 5-20 meters. During the trials, mobile users were guided to featured points of interest and to hotels, ATMs, nightclubs and tourist attractions closest to their calling locations. Recent studies by Strategis Group indicate that the wireless location services market could generate as much as $32 billion per year in revenues for European carriers and vendors by 2005.

The SnapTrack GSM Test Group consortium, formed more than a year ago, collectively supports over 30 million subscribers. Publicly disclosed members include Vodafone AirTouch Communications PLC (UK and US), BellSouth Mobility DCS (US), BT Cellnet (UK), Esat Digifone (Ireland), France Telecom (France), Omnitel Pronto Italia (Italy), T-Mobil (Germany), Telecel (Portugal) and Telefonica (Spain), and applications developer SignalSoft (UK and US). Prototype handsets were provided to the consortium for the field trials.

Infrastructure providers CMG Telecommunications (Holland), Nortel Networks (France) and Siemens Information and Communication Networks (Germany) also participated in the trials.

SnapTrack's Wireless Assisted GPS system improves upon conventional GPS by combining information from GPS satellites and from wireless networks to pinpoint a wireless handset. While conventional GPS receivers may take several minutes to provide a location fix, the SnapTrack system generally locates callers within a few seconds. With its GPS Indoors™ feature, callers can be located in a wide range of challenging call environments where conventional GPS will not work, including inside houses and moving vehicles, under heavy foliage, and in urban street canyons – usually to within 5-20 meters. The unique SnapTrack Location on Demand™ feature also ensures a caller's privacy, giving mobile phone users control over their own location information.

SnapTrack's technology products permit the design of cellular phones, pagers, PDAs, and other wireless devices that operate in multiple GPS navigation modes, allowing out-of-network location coverage and a variety of thin-client applications. SnapTrack's wireless location technology products require no Location Measurement Units installed in the network or additional cell sites, and are designed to have minimal impact on cost and handset form factor. SnapTrack's technology is air-interface neutral and is applicable in any two-way wireless system: cellular/PCS, satellite, or paging; 800/900 MHz or 1800/1900 MHz; GSM, CDMA, TDMA, PDC or 3G air interfaces.

CMG Telecommunications is the leading global supplier of messaging and Internet solutions for the wireless telecom industry. CMG develops high-end solutions in close co-operation with network operators. To date, more than 150 of these quality solutions have been delivered to over 75 operators worldwide. They are widely recognized to be the best around, combining minimum operator intervention with maximum performance and availability. The product portfolio includes the WAP Service BrokerTM, Mobile E-mail, Short Message Service Centre, Cell Broadcast System and EPPIX (Customer Care & Billing System). More information about CMG Telecommunications can be found on the Internet at www.cmgtele.com. CMG telecommunications is a division of CMG plc (www.cmg.com) a leading European IT services group, providing business information solutions around the world through consultancy, systems development, software applications and managed services. CMG was established in 1964 and nowadays employs around 11,000 employees. The Group is listed on the London and Amsterdam stock exchanges.

Headquartered in San Jose, Calif., SnapTrack is focused on integrating GPS and two-way wireless technologies. SnapTrack's patented architecture offers anytime, anywhere, accurate, high-speed location of a wireless caller, even inside buildings where conventional GPS does not operate. SnapTrack pioneered Wireless Assisted GPS, and owns patents that are fundamental to the cost-effective deployment of Wireless Assisted GPS-based location systems. SnapTrack has commercial agreements with Motorola, Texas Instruments, NTT

DoCoMo, Denso, NEC, CTC, Locate Networks, GlenAyre and DSPC. NTT DoCoMo, KDDI and Sprint PCS have all chosen to deploy products and services incorporating SnapTrack technology. For more information, please visit http://www.snaptrack.com.

QUALCOMM Incorporated (www.qualcomm.com) is a leader in developing and delivering innovative digital wireless communications products and services based on the Company's Code Division Multiple Access (CDMA) digital technology. The Company's business areas include integrated CDMA chipsets and system software; technology licensing; Eudora® email software for Windows® and Macintosh® computing platforms; digital cinema systems; and satellite-based systems including portions of the Globalstar™ system and wireless fleet management systems, OmniTRACS® and OmniExpress™. QUALCOMM owns patents that are essential to all of the CDMA wireless telecommunications standards that have been adopted or proposed for adoption by standards-setting bodies worldwide. QUALCOMM has licensed its essential CDMA patent portfolio to more than 90 telecommunications equipment manufacturers worldwide. Headquartered in San Diego, Calif., QUALCOMM is included in the S&P 500 Index and is a 2000 FORTUNE 500® company traded on The Nasdaq Stock Market® under the ticker symbol QCOM.

Except for the historical information contained herein, this news release contains forward-looking statements that are subject to risks and uncertainties, including the Company's ability to successfully design and have manufactured significant quantities of CDMA components on a timely and profitable basis, the extent and speed to which CDMA and Bluetooth technologies are deployed, change in economic conditions of the various markets the Company serves, as well as the other risks detailed from time to time in the Company's SEC reports, including the report on Form 10-K for the year ended September 24, 2000, and most recent Form 10-Q.

###

QUALCOMM Contacts:
John Cunningham
SnapTrack, Inc.
Tel: +1 408 556 0116
Fax:+1 408 556 0404
cunningh@qualcomm.com

Anita Hix
QUALCOMM CDMA Technologies
Tel: +1 858 658 5879
Fax: +1 858 651 7385
ahix@qualcomm.com

Renate van Berchum
CMG Telecommunications
Tel: +31 30 23 39 300
Fax: +31 30 23 39 490
press.telecom@cmg.com

QUALCOMM Home > Press Room

Tuesday August 7, 9:59 am Eastern Time

Press Release

CellPoint and SiRF Partner to Provide GSM/3G Operators with an Anytime, Anywhere Location Information Platform

Integration of network-based location technology with GPS provides most reliable coverage of location information to consumers

LONDON & SAN JOSE, Calif.--(BUSINESS WIRE)--Aug. 7, 2001--CellPoint Inc. (Nasdaq: CLPT - news), a global provider of mobile location technology and services, and SiRF Technology, Inc., a leading developer of location technology based on global positioning system (GPS), today announced a strategic partnership to deliver a platform to GSM cell phone operators that provides highly accurate location information to cell phone users in any environment. With this agreement, SiRF's Assisted GPS (A-GPS/a) technology will be integrated with CellPoint's network-based Enhanced Cell-ID (E-Cell-ID) location platform technology, providing consumers and wireless network operators the best of both location-information systems. A hybrid of GPS and network-based technology offers constant, accurate location information anytime, anywhere: GPS technology can pinpoint location to within 5 to 15 meters; however, the satellite signals can be blocked in certain environments, such as inside buildings, while network-based systems, such as CellPoint's E-Cell-ID can supplement in these environments.

``After spending considerable time researching our A-GPS partnership options, we have chosen SiRF as our A-GPS technology partner due to their expertise and vision in this exciting new sector," said Lars Persson, CEO of CellPoint Europe. ``The combination of CellPoint's E-Cell-ID technology and SiRF's A-GPS technology, means that together we will soon be ready to deploy telecom-grade hybrid E-Cell-ID/A-GPS solutions to the worldwide GSM/3G market. Starting off with CellPoint's Enhanced Cell-ID today and evolving to a combination of E-Cell-ID and A-GPS in the medium/long term, utilizing the same CellPoint core platform, is a

Related Quotes

CLPT	2.85	+0.00

delayed 20 mins - disclaimer

Get Quotes

very strong roadmap for GSM/3G operators. We have long said that GPS will be an excellent complement to CellPoint's total commercial solution, encompassing the location platform, the location technology and the location services."

``With the combination of SiRF's A-GPS and CellPoint's E-Cell-ID, consumers will have a more reliable way than ever before to ascertain their location," said Kanwar Chadha, founder and vice president of marketing of SiRF. ``Alliances with infrastructure providers as well as with leading handset providers enables SiRF to bring the advantages of location awareness to the masses, which has been our vision since the beginning."

E-911 Ready

``The combination of SiRF's GPS technology and CellPoint's E-Cell-ID meets the accuracy and performance requirements of the E-911 Mandate and provides GSM cellular operators in the US a solution to meet the Mandate's fast-approaching deadline of October 1, 2001," said Persson. ``The hybrid system allows service operators to deploy a flexible caller ID solution that doesn't require hardware modifications to the network, but will accommodate all of the new GPS-enabled devices once they hit the market."

Assisted GPS Ideal for Consumer Devices

SiRF's A-GPS technology enables significant improvement in GPS positioning in cellular and PCS (Personal Communications Service) handsets. This architecture supports Autonomous, Network Assisted MS- Based Positioning and MS-Assisted Network-Based positioning to provide location information under any wireless infrastructure. This flexibility enables carriers to not only build a framework for providing a range of value-added services, but also meet the FCC's E-911 Mandate requirements.

About SiRF Technology

SiRF Technology, Inc. develops and markets semiconductor and software products that are designed to enable location awareness in high-volume mobile consumer devices and commercial applications. Location awareness refers to the ability of a device to determine and make use of the information regarding its location. SiRF's products enable a range of devices to utilize GPS to detect location and have been integrated into mobile consumer devices, such as automobile navigation systems, GPS-based portable computing peripherals and handheld GPS navigation devices, and into commercial applications, such as property tracking devices and fleet management systems. SiRF markets and sells its products in four target markets: wireless handheld, automotive, mobile computing and embedded consumer/marine applications. For more information, please visit the company's Web site at www.sirf.com.

/a A-GPS, Assisted GPS, is a satellite positioning system that

improves the functionality and performance of GPS. GPS, Global

Positioning System, uses satellites to calculate positions of

devices equipped with GPS chips, on or near the earth.

CellPoint Inc. (Nasdaq and Stockholm OM Exchange: CLPT, www.cellpoint.com) is a US company with subsidiary operations in Sweden, Great Britain and South Africa delivering location and wireless telemetry services in cooperation with cellular operators worldwide. CellPoint's end-to-end cellular location technology is a high-capacity system that works in unmodified GSM networks and uses standard GSM or

WAP phones and standard Internet services. Several commercial applications are available for business and personal location services including Resource Manager(TM) for mobile resource management, iMate(TM) for location-sensitive information and Finder(TM), an application for locating friends and family. Subsidiary Unwire's programmable telemetry terminal servers are also integrated with the CellPoint Location Platform enabling a broad range of applications for wireless remote management and control.

CellPoint(TM) and CellPoint Systems(TM) are trademarks of CellPoint Inc. Forward-looking statements in this release are made pursuant to the safe harbor provisions of the Private Securities Litigation Act of 1995. Actual results may differ materially from those projected in any forward-looking statement. Investors are cautioned that such forward-looking statements involve risk and uncertainties that may cause actual results to differ from those described.

SiRF and the SiRF logo are registered trademarks of SiRF Technology, Inc.

Contact:

CellPoint Inc.
Hamish Kuzminski, Tel: +44 (0)1932 895310
E-mail: hk@cellpoint.com
or
SiRF
Cathy Wright, Evans Partners, Tel: +1 650-595-1871
E-Mail: cathy@evanspartners.com

Email this story - Most-emailed articles - Most-viewed articles

More Quotes and News: CellPoint Inc (NasdaqNM:CLPT - news)
Related News Categories: computers, networking, software, telecom

Search News Help

NEC

Press Release

Media Contact:

Aston Bridgman
NEC Corporation
Tel: +81-3-3798-6511
Fax: +81-3-3457-7249
E-mail: a-bridgman@ak.jp.nec.com

John Cunningham
SnapTrack, Inc.
Tel: 1-(408) 556-0116
Fax: 1-(408) 556-0404
E-mail: cunningh@qualcomm.com

*****For immediate use January 31st, 2001

NEC & SnapTrack Develop Wireless Assisted GPS Chipset Solution for Location Information Services via Mobile Terminals

TOKYO - January 31st, 2001 - NEC Corporation (NEC) (Nasdaq: NIPNY, FTSE: 6701q.l, TSE: 6701) and SnapTrack, Inc., have jointly developed a wireless location device (uPD77533) that uses the Global Positioning System (GPS) to provide accurate location information for applications in mobile handsets and other wireless devices.

The new chip, which uses SnapTrack's industry-leading Wireless Assisted GPS™ technology, enables all-terrain position location accuracy and availability. Sample chips are expected to be available in April 2001, along with a compatible RF/IF down converter developed by NEC as a chipset solution. Volume production of the chip is expected to begin in October 2001. Financial details of the royalty-bearing licensing agreement between NEC and SnapTrack for the joint project were not disclosed.

The wireless location chipset enables the simple integration of location information services into mobile handsets and terminals. The uPD77533 signal processor is fully compatible with SnapTrack's SnapSmart™ location server software, and utilizes SnapTrack's Wireless Assisted GPS location solution to provide accurate positioning even inside or between buildings targeting -152dBm sensitivity and cold start times of 3-6 seconds.

With SnapTrack's technology, final position calculations are performed on a location server using GPS measurements provided by the chipset embedded in the mobile device, reducing the processing and power consumption burden on the device while enhancing accuracy and response time. NEC's signal processing technology integrates this technology for communications between the GPS-enabled mobile terminal and the location server on a digital signal processor such as the uPD77533.

The uPB1007 down-converter integrated circuit (IC) offers signal processing capability to convert the high-frequency GPS satellite signal to a low-frequency signal used to establish location. Compared to NEC's current uPB1005 down converter product, the new chip offers a pre-amp onboard and a lower power dissipation.